

4/6/05

IN THE CLAIMS

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Amendment
JP

1. (Previously Presented): An apparatus for performing beamforming on a plurality of signals in a reception channel received from a receiving antenna array, said signals including simultaneous data signals from a plurality of transmitters, said circuit comprising:

an Nx1 switched beam beamforming circuit for weighting and combining outputs of N antenna receiving elements to generate a plurality of beam signals and selecting for output a single beam signal therefrom based on a beam scheduling sequence, wherein N is an integer greater than 1;

a beam schedule generating circuit for generating said beam scheduling sequence used by said Nx1 switched beam beamforming circuit for switching between ones of said plurality of beam signals for output;

a frequency downconverting circuit for converting said selected single beam signal to a baseband signal; and

a multi-path/multi-user estimation circuit for generating from said baseband signal path estimates and path estimate errors for each of said simultaneous data signals.

2. (Original): The apparatus of claim 1 further comprising an analog-to-digital converter between said frequency downconverting circuit and said multi-path/multi-user estimation circuit and wherein said multi-path/multi-user estimation circuit comprises a